

BOBBY JINDAL
GOVERNOR



HAROLD LEGGETT, Ph.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY ENVIRONMENTAL SERVICES

JUN 09 2009

Certified Mail # 7008 3230 0001 2852 9712
RETURN RECEIPT REQUESTED

File No: LA0002925
AI No: 1060
Activity No: PER20080003

Mr. Carl Handley, Plant Manager
Southwestern Electric Power Company
Arsenal Hill Power Plant
510 North Allen Ave.
Shreveport, LA 71101

RE: Draft Louisiana Pollutant Discharge Elimination System (LPDES) permit to discharge once-through cooling water, low volume wastewater, and non-process area stormwater runoff to Cross Bayou (Outfall 001) and cooling tower blowdown and low volume wastewater (Outfall 002) to the Red River from an existing steam electric generating facility located at 510 North Allen Ave in Shreveport, Caddo Parish.

Dear Mr. Handley:

The Department of Environmental Quality proposes to reissue an LPDES permit with the effluent limitations, monitoring requirements, and special conditions listed in the attached DRAFT PERMIT. Please note that this is a DRAFT PERMIT only and as such does not grant any authorization to discharge. Authorization to discharge will only be granted after all requirements described herein are satisfied and by the subsequent issuance of a FINAL PERMIT. Upon the effective date of the FINAL PERMIT, the FINAL PERMIT shall replace the previously issued LPDES permit.

This Office will publish a public notice one time in the local newspaper of general circulation, and in the Department of Environmental Quality Public Notice Mailing List. A copy of the public notice containing the specific requirements for commenting to this draft permit action will be sent under separate cover at the time the public notice is arranged. In accordance with LAC 33:IX.6521.A, the applicant shall receive and is responsible for paying the invoice(s) from the newspaper(s). LAC 33:IX.6521 states, "...The costs of publication shall be borne by the applicant."


The invoice, fee rating worksheet, and a copy of the fee regulations will be sent under a separate cover letter as applicable. Please note that a copy of the fee rating worksheet is also attached to this draft permit. A copy of the entire Louisiana Water Quality Regulations may be obtained from the LDEQ Office of Environmental Assessment, Post Office Box 4314, Baton Rouge, Louisiana 70821-4314, (225) 219-3236.

Pursuant to LAC 33:IX.1309.I, LAC 33:IX.6509.A.1 and LAC 33:I.1701, you must pay any outstanding fees to the Department. Therefore, you are encouraged to verify your facility's fee status by contacting LDEQ's Office of Management and Finance, Financial Services Division at (225) 219-3863. Failure to pay in the manner and time prescribed could result in applicable enforcement actions as prescribed in the Environmental Quality Act, including, but not limited to revocation or suspension of the applicable permit, and/or assessment of a civil penalty against you.

Southwestern Electric Power Company
Arsenal Hill Power Plant
Permit No: LA0002925, AI No: 1060
Page 2

Should you have any questions concerning any part of the DRAFT PERMIT, public notice requirements, or fee, please feel free to contact Lisa Kemp, Water Permits Division, Office of Environmental Services, by telephone (225) 219-3105 or email lisa.kemp@la.gov. To ensure that all correspondence regarding this facility is properly filed into the Department's Electronic Data Management System, you must reference your Agency Interest number 1060 and LPDES permit number LA0002925 on all future correspondence to this Department, including Discharge Monitoring Reports.

Sincerely,



Jesse Chang, Environmental Scientist Manager
Industrial Water Permits

lwk

Attachments: Draft Permit, Fact Sheet, and Fee Sheet

c: IO-W

ec: Ronda Burtch
Lisa Kemp
Cheryl LeJeune
Melissa Reboul
Water Permits Division

Gayle Denino
Office of Management and Finance
Services

Public Participation Group
Office of Environmental Assistance

PCU Coordinator
Office of Environmental Compliance

Franklin Mills
fmills@aep.com

DRAFT

PERMIT NUMBER: LA0002925
AI No.: 1060



OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

Southwestern Electric Power Company
Arsenal Hill Power Plant
510 North Allen Ave
Shreveport, LA 70760

Type Facility: steam electric power generating plant
Location: 510 North Allen Ave in Shreveport, Caddo Parish
Receiving Waters: Cross Bayou (Outfall 001) (Subsegment 100304)
Red River (Outfall 002) (Subsegment 100101)

to discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III attached hereto.

This permit shall become effective on _____

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on _____

DRAFT

Cheryl Sonnier Nolan
Assistant Secretary

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 2 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Outfall 001 – intermittent discharge of once-through cooling water, non-process area stormwater runoff, and previously monitored low volume wastewater.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS (LBS/DAY, UNLESS STATED) (MG/L, UNLESS STATED)					MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	---	---	1/day	Estimate
Temperature (°F)	00011		90 ¹	---	---	1/day	Grab
Total Residual Chlorine	50060	---	---	---	0.2	1/day	Grab ²

WHOLE EFFLUENT (Chronic) TOXICITY TESTING ^{2,3}	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] 24 Hr Composite Lethality, Static Renewal, 7-Day Chronic, <i>Pimephales promelas</i>	TLP6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] 24 Hr Composite Lethality, Static Renewal, 7-day Chronic, <i>Pimephales promelas</i>	TOP6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] 24 Hr Composite Growth, Static Renewal, 7-day Chronic, <i>Pimephales promelas</i>	TPP6C	Report	Report	1/quarter	24-hr. Composite.
NOEC, Pass/Fail [0/1] 24 Hr Composite Growth, Static Renewal, 7-day Chronic, <i>Pimephales promelas</i>	TGP6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] 24 Hr Composite Coefficient of Variation, Static Renewal, 7-Day Chronic, <i>Pimephales promelas</i>	TQP6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1] 24 Hr Composite Lethality, Static Renewal, 7-Day Chronic, <i>Ceriodaphnia dubia</i>	TLP3B	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] 24 Hr Composite Lethality, Static Renewal, 7-day Chronic, <i>Ceriodaphnia dubia</i>	TOP3B	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] 24 Hr Composite Reproduction, Static Renewal, 7-day Chronic, <i>Ceriodaphnia dubia</i>	TPP3B	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1] 24 Hr Composite Reproduction, Static Renewal, 7-day Chronic, <i>Ceriodaphnia dubia</i>	TGP3B	Report	Report	1/quarter	24-hr. Composite

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 3 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001 - continued)

WHOLE EFFLUENT (Chronic) TOXICITY TESTING *2, *3	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Value [%] 24 Hr Composite Coefficient of Variation, Static Renewal, 7- Day Chronic, <i>Ceriodaphnia dubia</i>	TQP3B	Report	Report	1/quarter	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 001, at the point of discharge from the cooling pond located on the north side of the facility prior to mixing with any other waters

FOOTNOTE(S):

- *1. Instantaneous maximum.
- *2. Sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
- *3. See Part II.R.

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 4 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the start up of Phase II operations and lasting through the expiration date the permittee is authorized to discharge from:

Outfall 002 – cooling tower blowdown and previously monitored low volume wastewater

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	(LBS/DAY, UNLESS STATED)		(MG/L, UNLESS STATED)			MEASUREMENT FREQUENCY	SAMPLE TYPE
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	50050	Report	Report	---	---	Continuous	Measure
Temperature (°F)	00011	Report ^{*1}	114 ^{*1}	---	---	Continuous	Measure
Free Available Chlorine	50064	5.65	14.12	0.2	0.5	1/week	Grab ^{*3}
Total Chromium	01034	5.65	5.65	0.2	0.2	1/year	Grab
Total Zinc	01092	28.2	28.2	1.0	1.0	1/month	Grab
Sulfates	00945	---	---	Report	Report	1/month	Grab
pH (standard units)	00400	---	---	6.0 (min) ^{*2}	9.0 (max) ^{*2}	1/week	Grab

WHOLE EFFLUENT (Acute) TOXICITY TESTING ^{*3, *4}	Percent % (UNLESS STATED)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	48 Hr. MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, <i>Pimephales promelas</i>	TEM6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, <i>Pimephales promelas</i>	TOM6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] Coefficient of Variation, Static Renewal, 48-Hour Acute, <i>Pimephales promelas</i>	TQM6C	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, <i>Daphnia pulex</i>	TEM3D	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, <i>Daphnia pulex</i>	TOM3D	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%] Coefficient of Variation, Static Renewal, 48-Hour Acute, <i>Daphnia pulex</i>	TQM3D	Report	Report	1/quarter	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts.

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 5 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 002 - continued)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 002, at the point of discharge from the cooling tower to the piping that routes the cooling tower effluent to the Red River, prior to mixing with other waters.

FOOTNOTE(S):

- *1 See Part II.L.
- *2 The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.
- *3. Sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
- *4. See Part II.S.

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 6 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date and lasting through expiration date the permittee is authorized to discharge from:

Internal Outfall 101 – The discharge of low volume wastewater (including but not limited to boiler blowdown and floor drains) from Unit 5.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS Units (Specify)			MONITORING REQUIREMENTS ^{*1}	
	STORET CODE	MONTHLY AVERAGE	WEEKLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/day	Estimate
TSS ^{*2, *3}	00530	30 mg/l	100 mg/l	1/week	Grab
Oil & Grease ^{*2}	03582	15 mg/l	20 mg/l	1/week	Grab
pH (standard units)	00400	6.0 (min) ^{*4}	9.0 (max) ^{*4}	1/week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 101, at the point of discharge from the wastewater collection sump located inside the old main plant building prior to mixing with any other waters.

FOOTNOTES:

- *1 When discharging.
- *2 Since more than one source is associated with this particular waste category, individual samples from each source may be composited physically or arithmetically into a single flow weighted sample for analysis and reporting.
- *3 TSS limits will be reported as the difference between the TSS concentration at the low volume wastewater discharge and the concentration of the intake water as measured at the intake of the low volume wastewater system.
- *4 The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

PART I

Permit No.: Draft LA0002925

AI No.: 1060

Page 7 of 7

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the commencement of Phase II operations and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Internal Outfall 102 – The discharge of miscellaneous low volume wastewater from the new units (including but not limited to water treatment wastewaters and floor drains).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATIONS Units (Specify)			MONITORING REQUIREMENTS ^{*1}	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/day	Estimate
TSS ^{*2}	00530	30 mg/l	100 mg/l	1/week	Grab
Oil & Grease ^{*2}	03582	15 mg/l	20 mg/l	1/week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 102, at the point of discharge from the oil/water separator (or other low volume waste sources) to the cooling tower, prior to mixing with any other waters

FOOTNOTES:

*1 When discharging.

*2 Since more than one source is associated with this particular waste category, individual samples from each source may be composited physically or arithmetically into a single flow weighted sample for analysis and reporting.

Part II
 Page 1 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements

In addition to the standard conditions required in all permits and listed in Part III, the Office has established the following additional requirements in accordance with the Louisiana Water Quality Regulations.

- A. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.
- B. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.
- C. For definitions of monitoring and sampling terminology see Part III, Section F.

D. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

Pollutant(s): Total Chromium, Total Zinc

E. COMPOSITE SAMPLING

Unless otherwise specified in this permit, the term "24-hour composite sample" means a sample consisting of a minimum of four (4) aliquots of effluent collected at regular intervals over a normal 24-hour operating day and combined in proportion to flow or a sample continuously collected in proportion to flow over a normal 24-hour operating period.

F. 40 CFR PART 136 (See LAC 33:IX.4901) ANALYTICAL REQUIREMENTS

Unless otherwise specified in this permit, monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136, and in particular, Appendices A, B, and C (See LAC 33:IX.4901).

G. FLOW MEASUREMENT "ESTIMATE" SAMPLE TYPE

If the flow measurement sample type in Part I is specified as "estimate", flow measurements shall not be subject to the accuracy provisions established at Part III.C.6 of this permit. The daily flow value may be estimated using best engineering judgement.

H. MINIMUM QUANTIFICATION LEVEL (MQL)

If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

<u>NONCONVENTIONAL</u>	<u>MQL (µg/L)</u>
Phenolics, Total Recoverable (4AAP)	5
Chlorine (Total Residual)	100
3-Chlorophenol	10
4-Chlorophenol	10
2,3-Dichlorophenol	10
2,5-Dichlorophenol	10

Part II

Page 2 of 26

Permit No.: Draft LA0002925

AI No.: 1060

Other Requirements continued

2,6-Dichlorophenol	10
3,4-Dichlorophenol	10
2,4-D	10
2,4,5-TP (Silvex)	4
<u>METALS AND CYANIDE</u>	<u>MQL (µg/L)</u>
Antimony (Total)	60
Arsenic (Total)	10
Beryllium (Total)	5
Cadmium (Total)	1
Chromium (Total)	10
Chromium (3+)	10
Chromium (6+)	10
Copper (Total)	10
Lead (Total)	5
Mercury (Total)	0.2
Molybdenum (Total)	30
Nickel (Total) Freshwater	40
Nickel (Total) Marine	5
Selenium (Total)	5
Silver (Total)	2
Thallium (Total)	10
Zinc (Total)	20
Cyanide (Total)	20
<u>DIOXIN</u>	<u>MQL (µg/L)</u>
2,3,7,8-TCDD	0.00001
<u>VOLATILE COMPOUNDS</u>	<u>MQL (µg/L)</u>
Acrolein	50
Acrylonitrile	50
Benzene	10
Bromoform	10
Carbon Tetrachloride	10
Chlorobenzene	10
Chlorodibromomethane	10
Chloroethane	50
2-Chloroethylvinylether	10
Chloroform	10
Dichlorobromomethane	10
1,2-Dichlorobenzene	10
1,3-Dichlorobenzene	10
1,4-Dichlorobenzene	10
1,1-Dichloroethane	10
1,2-Dichloroethane	10
1,1-Dichloroethylene	10
1,2-Dichloropropane	10
1,3-Dichloropropylene	10
Ethylbenzene	10
Methyl Bromide [Bromomethane]	50
Methyl Chloride [Chloromethane]	50
Methylene Chloride	20
1,1,2,2-Tetrachloroethane	10
Tetrachloroethylene	10
Toluene	10

Part II

Page 3 of 26

Permit No.: Draft LA0002925

AI No.: 1060

Other Requirements continued

1,2-trans-Dichloroethylene	10
1,1,1-Trichloroethane	10
1,1,2-Trichloroethane	10
Trichloroethylene	10
Vinyl Chloride	10

ACID COMPOUNDSMQL (µg/L)

2-Chlorophenol	10
2,4-Dichlorophenol	10
2,4-Dimethylphenol	10
4,6-Dinitro-o-Cresol [2-Methyl-4,6-Dinitrophenol]	50
2,4-Dinitrophenol	50
2-Nitrophenol	20
4-Nitrophenol	50
p-Chloro-m-Cresol [4-Chloro-3-Methylphenol]	10
Pentachlorophenol	50
Phenol	10
2,4,6-Trichlorophenol	10

BASE/NEUTRAL COMPOUNDSMQL (µg/L)

Acenaphthene	10
Acenaphthylene	10
Anthracene	10
Benzidine	50
Benzo(a)anthracene	10
Benzo(a)pyrene	10
3,4-Benzofluoranthene	10
Benzo(ghi)perylene	20
Benzo(k)fluoranthene	10
Bis(2-chloroethoxy) Methane	10
Bis(2-chloroethyl) Ether	10
Bis(2-chloroisopropyl) Ether	10
Bis(2-ethylhexyl) Phthalate	10
4-Bromophenyl Phenyl Ether	10
Butylbenzyl Phthalate	10
2-Chloronaphthalene	10
4-Chlorophenyl Phenyl Ether	10
Chrysene	10
Dibenzo(a,h)anthracene	20
3,3'-Dichlorobenzidine	50
Diethyl Phthalate	10
Dimethyl Phthalate	10
Di-n-Butyl Phthalate	10
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
Di-n-octyl Phthalate	10
1,2-Diphenylhydrazine	20
Fluoranthene	10
Fluorene	10
Hexachlorobenzene	10
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	10
Hexachloroethane	20
Indeno(1,2,3-cd)pyrene [2,3-o-Phenylene Pyrene]	20
Isophorone	10

Part II
 Page 4 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

Naphthalene	10
Nitrobenzene	10
n-Nitrosodimethylamine	50
n-Nitrosodi-n-Propylamine	20
n-Nitrosodiphenylamine	20
Phenanthrene	10
Pyrene	10
1,2,4-Trichlorobenzene	10
<u>PESTICIDES</u>	<u>MQL (ug/L)</u>
Aldrin	0.05
Alpha-BHC	0.05
Beta-BHC	0.05
Gamma-BHC [Lindane]	0.05
Delta-BHC	0.05
Chlordane	0.2
4,4'-DDT	0.1
4,4'-DDE [p,p-DDX]	0.1
4,4'-DDD [p,p-TDE]	0.1
Dieldrin	0.1
Alpha-Endosulfan	0.1
Beta-Endosulfan	0.1
Endosulfan Sulfate	0.1
Endrin	0.1
Endrin Aldehyde	0.1
Heptachlor	0.05
Heptachlor Epoxide [BHC-Hexachlorocyclohexane]	0.05
PCB-1242	1.0
PCB-1254	1.0
PCB-1221	1.0
PCB-1232	1.0
PCB-1248	1.0
PCB-1260	1.0
PCB-1016	1.0
Toxaphene	5.0

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR Part 136 (See LAC 33:IX.2531). For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to this Office a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval by this Office, the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

I. PROHIBITION OF PCB DISCHARGES

There shall be no discharge of polychlorinated biphenyls (PCB's). The minimum quantification level for PCB's is 1.0 ug/l. If any individual analytical test result for PCB's is less than the minimum quantification level, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

Part II
Page 5 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

J. LOW VOLUME WASTE SOURCES

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established. Low volume waste sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastewaters are not included.

K. FREE AVAILABLE CHLORINE

The term "free available chlorine" shall mean the value obtained using the amperometric titration method for free available chlorine described in the latest edition of Standard Methods for the Examination of Water and Wastewater.

Free available chlorine may not be discharged from any unit for more than two hours per day and not more than one unit in any plant may discharge free available chlorine at any one time.

L. TEMPERATURE

Daily temperature discharge is defined as the flow-weighted average (FWAT) and, on a daily basis, shall be monitored and recorded in accordance with Part I of this permit. FWAT shall be calculated at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

"Daily average temperature" (also known as monthly average) shall be the arithmetic average of all FWATs calculated during the calendar month.

"Daily maximum temperature" (also known as the daily maximum value) shall be the highest FWAT calculated during the calendar month.

M. TOTAL RESIDUAL CHLORINE

The term total residual chlorine (or total residual oxidants for intake water with bromides) means the value obtained using the amperometric method for total residual chlorine described in 40 CFR part 136. Total residual chlorine may not be discharged from any single generating unit for more than two hours per day.

Simultaneous multi-unit chlorination is permitted.

N. PROHIBITION OF 126 PRIORITY POLLUTANTS

There shall be no discharge of any 126 priority pollutants (40 CFR 423 Appendix A) associated with the chemicals added for cooling tower maintenance, except total chromium and total zinc. The minimum quantification levels for the 126 priority pollutants are found in Part II, Paragraph H.

Part II

Page 6 of 26

Permit No.: Draft LA0002925

AI No.: 1060

Other Requirements continued

- O. The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

<u>Permit Requirements</u>	<u>Compliance Date</u>
Outfalls 001, 101	Permit Effective Date
Outfalls 002, 102	Commencement of Phase II Operations

*The permittee shall notify the Office of Environmental Services and the Northwest Regional Office in writing at least 30 days prior to discharge. This supersedes Part III.D.5.

P. PERMIT REOPENER CLAUSE

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs, if the effluent standard, limitations, water quality studies or TMDLs so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The permittee is required to complete and submit Section III – Laboratory Analysis of LPDES permit application form **IND**, Industrial Wastewater Discharge Permit Application, no later than two years after the commencement of discharge from the new, proposed Outfalls 002 and 102 as per LAC 33:IX.2501.K.5.f. Upon submittal of the appropriate data, LDEQ may choose to modify, or alternatively, revoke and reissue this permit to change effluent limitations based on the actual reported flow or production.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Q. DISCHARGE MONITORING REPORTS

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or an approved substitute). All monitoring reports must be retained for a period of at least three (3) years from the date of the sample measurement. The permittee shall make available to this Department, upon request, copies of all monitoring data required by this permit.

Part II
 Page 7 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

If there is no discharge during the reporting period, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report for that outfall.

Monitoring results for each reporting period shall be summarized on a Discharge Monitoring Report (DMR) Form (one DMR form per monitoring period per outfall) and submitted to the Office of Environmental Compliance either hand delivered or postmarked no later than the 15th day of the month following each reporting period.

1. For parameter(s) with monitoring frequencies of 1/month or more frequent (i.e. continuous, 1/batch, 1/discharge event, 1/day, 3/week, 2/week, 1/week, 2/month, etc.), DMRs shall be submitted in accordance with the following schedule:

Submit DMR postmarked by the 15th day of the following month.

2. For parameter(s) that require a monitoring frequency of 1/2 months, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January 1 - February 28(29)	March 15th
March 1 - April 30	May 15th
May 1 - June 30	July 15th
July 1 - August 31	September 15th
September 1 - October 31	November 15th
November 1 - December 31	January 15th

3. For parameter(s) that require a monitoring frequency of quarterly, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January, February, March	April 15th
April, May, June	July 15th
July, August, September	October 15th
October, November, December	January 15th

4. For parameter(s) that require a semiannual monitoring frequency, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January - June	July 15th
July - December	January 15 th

5. For parameter(s) that require an annual monitoring frequency, DMRs shall be submitted in accordance with the following schedule:

Part II
 Page 8 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

Monitoring Period

January-December

DMR Postmark Date

January 15th

Duplicate copies of DMR's (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503, and all other reports (one set of originals) required by this permit shall be submitted to the Permit Compliance Unit at the following address:

Department of Environmental Quality
 Office of Environmental Compliance
 Permit Compliance Unit
 Post Office Box 4312
 Baton Rouge, Louisiana 70821-4312

**R. WHOLE EFFLUENT TOXICITY TESTING
 (7-DAY CHRONIC NOEC: FRESHWATER)**

It is unlawful and a violation of this permit for a permittee or the designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by the Louisiana Department of Environmental Quality.

1. SCOPE AND METHODOLOGY

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO OUTFALL(S):	001
REPORTED ON DMR AS OUTFALL:	TX1
CRITICAL DILUTION:	51%
EFFLUENT DILUTION SERIES:	22%, 29%, 39%, 51%, 69%
SAMPLE TYPE:	24-Hour Composite
TEST SPECIES/METHODS:	40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The survival NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. The NOEC for growth or reproduction is defined as the greatest effluent dilution at and below

Part II
 Page 9 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

which sub-lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.

- c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- d. Lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

The requirements of this section apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution.

If any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the term of the permit.

- a. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates statistically significant lethal or sub-lethal toxic effects at the critical dilution or lower effluent dilutions. The additional tests shall be conducted monthly during the next three consecutive months in which a discharge occurs to determine if toxicity is persistent or occurs on a periodic basis. The purpose of this testing is to determine whether toxicity is present at a level and frequency that will provide toxic sample results to use in performing a Toxicity Reduction Evaluation (TRE). If no additional test failures occur during the retest monitoring period, the testing frequency will be once per quarter for the term of the permit or until another test failure occurs. The permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.
- b. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED: If any of the valid additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in item 6 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Compliance - Permit Compliance Unit in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.
- c. IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED: If any two of the three valid additional tests demonstrate significant sub-lethal effects at 75% effluent dilution or lower, the permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements (emphasizing investigations pertaining to sub-lethal toxicity) as specified in Item 6 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Compliance - Permit Compliance Unit in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the second failed retest.

Part II
 Page 10 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

A TRE concentrating on sub-lethal effects may also be required for failure to perform the required tests.

- d. The provisions of item 2.a are suspended upon submittal of the **TRE Action Plan**.

3. **REQUIRED TOXICITY TESTING CONDITIONS**

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods.
- iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

- i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA-821-R-02-013, or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

- ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution

Part II
Page 11 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-013, or the most recent update thereof.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness and alkalinity to the closest downstream perennial water for;
 - A. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
 - B. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - A. a synthetic dilution water control which fulfills the test acceptance requirements of item 3.a was run concurrently with the receiving water control;
 - B. the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
 - C. the permittee includes all test results indicating receiving water toxicity with the full report and information required by item 4 below; and
 - D. the synthetic dilution water shall have a pH, hardness and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect a minimum of three flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.
- ii. The permittee shall collect second and third 24-hour composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

Part II
 Page 12 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

- iii. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping and/or storage.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample-volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in item 4 of this section.

4. REPORTING

- a. A valid test must be completed and test results must be submitted for each species during each Monitoring Period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA-821-R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part III.C of this permit. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review. The permittee shall submit the first full report to the following address:

Department of Environmental Quality
 Office of Environmental Compliance
 P.O. Box 4312
 Baton Rouge, Louisiana 70821-4312
 Attn: Permit Compliance Unit

- b. The permittee shall submit the results of each valid toxicity test on the DMR for that Monitoring Period in accordance with Part III. D.4 and the DMR Monitoring Period schedule contained in Part II of this permit. Submit retest information clearly marked as such on the DMR for the Monitoring Period in which the retest occurred. Only results of valid tests are to be reported on the DMR. The permittee shall submit the Table 1 Summary Sheet with each valid test.
 - i. Pimephales promelas (Fathead Minnow)
 - A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP6C.
 - B. Report the NOEC value for survival, Parameter No. TOP6C.
 - C. Report the NOEC value for growth, Parameter No. TPP6C.

Part II

Page 13 of 26

Permit No.: Draft LA0002925

AI No.: 1060

Other Requirements continued

- D. If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP6C.
 - E. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C.
- ii. Ceriodaphnia dubia
- A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP3B.
 - B. Report the NOEC value for survival, Parameter No. TOP3B.
 - C. Report the NOEC value for reproduction, Parameter No. TPP3B.
 - D. If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP3B.
 - E. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B.
- iii. The permittee shall report the following results for all VALID toxicity retests on the DMR for that Monitoring Period.
- A. Retest #1 (STORET 22415): If the first monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #1 (STORET 22418): If the first monthly retest following failure of a routine test for either test species results in an NOEC for growth or reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".
 - B. Retest #2 (STORET 22416): If the second monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #2 (STORET 22419): If the second monthly retest following failure of a routine test for either test species results in an NOEC for growth or reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".
 - C. Retest #3 (STORET 51443): If the third monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #3 (STORET 51444): If the third monthly retest following failure of a routine test for either test species results in an NOEC for growth or reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".

Part II
Page 14 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

If, for any reason, a retest cannot be performed during the Monitoring Period in which the triggering routine test failure is experienced, the permittee shall report it on the following Monitoring Period's DMR, and the comments section of the DMRs shall be annotated to that effect. If retesting is not required during a given Monitoring Period, the permittee shall leave these DMR fields blank.

The permittee shall submit the toxicity testing information contained in Table 1 of this permit with the DMR subsequent to each and every toxicity test Monitoring Period. The DMR and the summary table should be sent to the address indicated in 4.a.

5. **MONITORING FREQUENCY REDUCTION**

- a. Upon successfully passing the first four consecutive quarters of WET testing after permit issuance/reissuance and in the absence of subsequent lethal and/or sub-lethal toxicity for one or both test species at or below the critical dilution, the permittee may apply for a testing frequency reduction. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the Ceriodaphnia dubia).
- b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a above. In addition, the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects, and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance Unit to update the permit reporting requirements.
- c. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the Monitoring Frequency/Monitoring Period for both test species reverts to once per quarter until the permit is re-issued.
- d. LETHAL AND/OR SUB-LETHAL FAILURES - If any test fails the lethal and/or sub-lethal endpoint at any time during the term of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

6. **TOXICITY REDUCTION EVALUATION (TRE)**

- a. The permittee shall submit a **Toxicity Reduction Evaluation (TRE) Action Plan and Schedule** for conducting a TRE for the following:
 - i. If lethal effects have been demonstrated: within (90) days of confirming lethality in any retest; or
 - ii. If only sub-lethal effects have been demonstrated: within (90) days of confirming sub-lethality at 75% effluent dilution or lower in any two out of three retests.

The **TRE Action Plan** shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-

Part II
 Page 15 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

based effluent requirements and/or chemical-specific limits by reducing an effluent's toxicity (includes sub-lethal toxicity, if applicable) to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent lethal and/or sub-lethal toxicity and/or treatment methods which will reduce the effluent toxicity. The **TRE Action Plan** shall lead to the successful elimination of effluent lethal and/or sub-lethal toxicity at the critical dilution and include the following:

- i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures"** (EPA-600/6-91/003) and **"Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I"** (EPA-600/6-91/005), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity"** (EPA/600/R-92/080) and **"Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity"** (EPA/600/R-92/081), as appropriate;

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at 1-800-553-6847, or by writing:

U.S. Department of Commerce
 National Technical Information Service
 5285 Port Royal Road
 Springfield, VA 22161

- ii. **Sampling Plan** (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual 24-hour composite samples, for the chemical specific analysis;

- iii. **Quality Assurance Plan** (e.g., QA/QC implementation, corrective actions, etc.); and

Part II
Page 16 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

- iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the **TRE Action Plan** within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- c. The permittee shall submit a quarterly **TRE Activities Report**, with the Discharge Monitoring Report in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:
 - i. any data and/or substantiating documentation which identify the pollutant(s) and/or source(s) of effluent lethal and/or sub-lethal toxicity;
 - ii. any studies/evaluations and results on the treatability of the facility's effluent lethal and/or sub-lethal toxicity; and
 - ii. any data which identify effluent toxicity control mechanisms that will reduce effluent toxicity to achieve compliance with permit biomonitoring requirements and/or chemical-specific limits.

The **TRE Activities Report** shall be submitted to the following addresses:

Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

U.S. Environmental Protection Agency, Region 6
Water Enforcement Branch
1445 Ross Avenue
Dallas, Texas 75202

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality and/or sub-lethality (if applicable) in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in the permittee achieving compliance with permit biomonitoring requirements and/or chemical-specific limits. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the above addresses.

- e. Quarterly testing during the TRE is a minimum monitoring requirement. LDEQ recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. At the end of the TRE, LDEQ will consider all information submitted and establish appropriate controls to prevent future toxic discharges, including WET and/or chemical-specific limits per state regulations at LAC 33:IX.2707.D.1.e.

Part II
 Page 17 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

S. WHOLE EFFLUENT TOXICITY TESTING (48 HR ACUTE NOEC: FRESHWATER)

It is unlawful and a violation of this permit for a permittee or the designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by the Louisiana Department of Environmental Quality.

1. SCOPE AND METHODOLOGY

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO OUTFALL(S):	002
REPORTED ON DMR AS OUTFALL:	TX2
CRITICAL DILUTION:	12%
EFFLUENT DILUTION SERIES:	5%, 7%, 9%, 12%, and 16%
SAMPLE TYPE:	24-Hour Composite
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.
- c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

Other Requirements continued

2. **PERSISTENT LETHALITY**

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent).

If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the term of the permit.

- a. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates statistically significant lethal toxic effects at the critical dilution or lower effluent dilutions. The additional tests shall be conducted monthly during the next three consecutive months in which a discharge occurs to determine if toxicity is persistent or occurs on a periodic basis. The purpose of this testing is to determine whether toxicity is present at a level and frequency that will provide toxic sample results to use in performing a Toxicity Reduction Evaluation (TRE). If no additional test failures occur during the retest monitoring period, the testing frequency will be once per quarter for the term of the permit or until another test failure occurs. The permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.
- b. If any of the valid additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in item 6 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Compliance - Permit Compliance Unit in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.
- c. The provisions of item 2.a are suspended upon submittal of the **TRE Action Plan**.

Part II
Page 19 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and Fathead minnow survival test.
- iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for the Daphnia pulex survival test and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-012, or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

Part II
 Page 20 of 26
 Permit No.: Draft LA0002925
 AI No.: 1060

Other Requirements continued

- A. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
 - B. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
 - ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - A. a synthetic dilution water control which fulfills the test acceptance requirements of item 3.a was run concurrently with the receiving water control;
 - B. the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
 - C. the permittee includes all test results indicating receiving water toxicity with the full report and information required by item 4 below; and
 - D. the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.
- d. Samples and Composites
 - i. The permittee shall collect two flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.
 - ii. The permittee shall collect a second 24-hour composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping and/or storage.
 - iii. The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination.

Part II
Page 21 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

biocide usage or other potentially toxic substance discharged on an intermittent basis.

- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in item 4 of this section.

4. **REPORTING**

- a. A valid test must be completed and test results must be submitted for each species during each Monitoring Period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part III.C of this permit. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review. The permittee shall submit the first full report to:

Department of Environmental Quality
Office of Environmental Compliance
P. O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

In addition, if enforcement authority has been retained by EPA, a copy of the report must also be submitted to the following address:

U.S. Environmental Protection Agency, Region 6
Water Enforcement Branch, 6 EN-WC
1445 Ross Ave.
Dallas, Texas 75202

Part II
Page 22 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

- b. The permittee shall submit the results of each valid toxicity test on the DMR for that Monitoring Period in accordance with Part III D.4 and the DMR Monitoring Period schedule contained in Part II of this permit. Submit retest information clearly marked as such on the DMR for the Monitoring Period in which the retest occurred. Only results of valid tests are to be reported on the DMR. The permittee shall submit the Table 1 Summary Sheet with each valid test.
- i. Pimephales promelas (Fathead minnow)
- A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
- B. Report the NOEC value for survival, Parameter No. TOM6C.
- C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.
- ii. Daphnia pulex
- A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
- B. Report the NOEC value for survival, Parameter No. TOM3D.
- C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.
- iii. The permittee shall report the following results for all VALID toxicity retests on the DMR for that Monitoring Period.
- A. Retest #1 (STORET 22415): If the first monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".
- B. Retest #2 (STORET 22416): If the second monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".
- C. Retest #3 (STORET 51443): If the third monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Part II
Page 23 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

If, for any reason, a retest cannot be performed during the Monitoring Period in which the triggering routine test failure is experienced, the permittee shall report it on the following Monitoring Period's DMR, and the comments section of the DMRs shall be annotated to that effect. If retesting is not required during a given Monitoring Period, the permittee shall leave these DMR fields blank.

The permittee shall submit the toxicity testing information contained in Table 1 of this permit with the DMR subsequent to each and every toxicity test Monitoring Period. The DMR and the summary table should be sent to the address indicated in 4.a.

5. **MONITORING FREQUENCY REDUCTION**

- a. Upon successfully passing the first four consecutive quarters of WET testing after permit issuance/reissuance and in the absence of subsequent lethal toxicity for one or both test species at or below the critical dilution, the permittee may apply for a testing frequency reduction. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).
- b. **CERTIFICATION** - The permittee must certify in-writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a above. In addition, the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of the information, the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance Unit to update the permit reporting requirements.
- c. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the Monitoring Frequency/Monitoring Period for both test species reverts to once per quarter until the permit is re-issued.
- d. **SURVIVAL FAILURES** - If any test fails the survival endpoint at any time during the term of this permit, three monthly retests are required and the monitoring frequency for the affected species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

6. **TOXICITY REDUCTION EVALUATION (TRE)**

- a. Within ninety (90) days of confirming lethality in any retest, the permittee shall submit a **Toxicity Reduction Evaluation (TRE) Action Plan and Schedule** for conducting a TRE. The **TRE Action Plan** shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to

Part II
Page 24 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

determine those actions necessary to achieve compliance with water quality-based effluent requirements and/or chemical-specific limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The **TRE Action Plan** shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

- i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures"** (EPA-600/6-91/003) and **"Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I"** (EPA-600/6-91/005), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity"** (EPA/600/R-92/080) and **"Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity"** (EPA/600/R-92/081), as appropriate;

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at 1-800-553-6847, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

- ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of

Part II
Page 25 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual 24-hour composite samples, for the chemical specific analysis;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
 - iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the **TRE Action Plan** within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- c. The permittee shall submit a quarterly **TRE Activities Report**, with the Discharge Monitoring Report in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:
- i. any data and/or substantiating documentation which identify the pollutant(s) and/or source(s) of effluent toxicity;
 - ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
 - iii. any data which identify effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to achieve compliance with permit biomonitoring requirements and/or chemical-specific limits.

The **TRE Activities Report** shall be submitted to the following addresses:

Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

U.S. Environmental Protection Agency, Region 6
Water Enforcement Branch
1445 Ross Avenue
Dallas, Texas 75202

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when

Part II
Page 26 of 26
Permit No.: Draft LA0002925
AI No.: 1060

Other Requirements continued

implemented, result in the permittee achieving compliance with permit biomonitoring requirements and/or chemical-specific limits. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the above addresses.

- e. Quarterly testing during the TRE is a minimum monitoring requirement. LDEQ recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. At the end of the TRE, LDEQ will consider all information submitted and establish appropriate controls to prevent future toxic discharges, including WET and/or chemical-specific limits per state regulations at LAC 33:IX.2707.D.1.e.

T. COOLING WATER INTAKE STRUCTURE REQUIREMENTS: 316(b) of the CWA

The permittee shall at all times operate and maintain the recirculating cooling water intake systems as described in the permit application received on July 18, 2008 and the August 13, 2003 Statement of Basis for LPDES permit LA0002925. If it is later determined that the recirculating cooling water intake systems are not representative of Best Technology Available (BTA) for minimizing adverse environmental impact, the permit may be reopened to incorporate additional requirements.

TABLE 1
SUMMARY SHEET
Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

PERMITTEE: Southwestern Electric Power Company
FACILITY SITE: Arsenal Hill Power Plant LPDES PERMIT NUMBER: LA0002925
OUTFALL IDENTIFICATION: 001
OUTFALL SAMPLE IS FROM _____ SINGLE _____ MULTIPLE DISCHARGE
BIOMONITORING LABORATORY: _____
DILUTION WATER USED: _____ RECEIVING WATER _____ LAB WATER
CRITICAL DILUTION 51 % DATE TEST INITIATED _____

1. LOW-FLOW LETHALITY:

Is the mean survival at 7 days significantly less ($p=0.05$) than the control survival at the low-flow or critical dilution? _____ Yes _____ No

PERCENT SURVIVAL - Ceriodaphnia

TIME OF READING	PERCENT EFFLUENT					
	0 %	22%	29%	39%	51%	69%
24-HOUR						
48-HOUR						
7-DAY						

2. LOW-FLOW SUB-LETHALITY:

Is the mean number of young produced per female at 7 days significantly less ($p=0.05$) than the control's number of young per female for the low-flow or critical dilution? _____ Yes _____ No

NUMBER OF YOUNG PRODUCED PER FEMALE @ 7 DAYS - Ceriodaphnia

REPLICATE	PERCENT EFFLUENT					
	0%	22%	29%	39%	51%	69%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Mean No. of young						
CV%*						

* Coefficient of variation = Standard Deviation * 100/mean

3. Are the test results to be considered valid? _____ Yes _____ No
If X no (test invalid), what reasons for invalidity?

4. Is this a retest of a previous invalid test? _____ Yes _____ No
Is this a retest of a previous test failure? _____ Yes _____ No
5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Ceriodaphnia:
- a. NOEC SURVIVAL = _____ % effluent
- b. NOEC REPRODUCTION = _____ % effluent

PERCENT EFFLUENT	AVERAGE DRY WEIGHT IN MILLIGRAMS IN REPLICATE CHAMBERS					MEAN DRY WEIGHT	CV%*
	A	B	C	D	E		
0%							
22%							
29%							
39%							
51%							
69%							

* Coefficient of variation – standard deviation x 100/mean

3. Are the test results to be considered valid? ☐ Yes ☐ No
If X no (test invalid) , what reasons for invalidity?
4. Is this a retest of a previous invalid test? ☐ Yes ☐ No
Is this a retest of a previous test failure? ☐ Yes ☐ No
5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Pimephales:
- a. NOEC SURVIVAL = _____ % effluent
- b. NOEC GROWTH = _____ % effluent

TABLE 1
SUMMARY SHEET
***Daphnia pulex* ACUTE SURVIVAL TEST RESULTS**

PERMITTEE: Southwestern Electric Power Company
 FACILITY SITE: Arsenal Hill Power Plant
 LPDES PERMIT NUMBER: LA0002925
 OUTFALL IDENTIFICATION: 002
 OUTFALL SAMPLE IS FROM SINGLE MULTIPLE DISCHARGE
 BIOMONITORING LABORATORY:
 DILUTION WATER USED: RECEIVING WATER LAB WATER
 CRITICAL DILUTION 12 % DATE TEST INITIATED

1. LOW-FLOW LETHALITY:

Is the mean survival at 48 hours significantly less ($p=0.05$) than the control survival for the low flow or critical dilution? Yes No

DILUTION SERIES RESULTS - *Daphnia*

TIME OF READING	REP	0%	5%	7%	9%	12%	16%
24-HOUR							
48-HOUR							
MEAN							

2. Are the test results to be considered valid? Yes No

If X no (test invalid), what reasons for invalidity?

3. Is this a retest of a previous invalid test? Yes No

Is this a retest of a previous test failure? Yes No

4. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for *Daphnia pulex*:

NOEC % EFFLUENT

LC₅₀48 % EFFLUENT

TABLE 1
SUMMARY SHEET
Pimephales promelas ("fathead minnow") ACUTE SURVIVAL TEST

PERMITTEE: Southwester Electric Power Company
 FACILITY SITE: Arsenal Hill Power Plant
 LPDES PERMIT NUMBER: LA0002925
 OUTFALL IDENTIFICATION: 002
 OUTFALL SAMPLE IS FROM _____ SINGLE _____ MULTIPLE DISCHARGE
 BIOMONITORING LABORATORY: _____
 DILUTION WATER USED: _____ RECEIVING WATER _____ LAB WATER
 CRITICAL DILUTION 12 % DATE TEST INITIATED _____

1. LOW-FLOW LETHALITY:

Is the mean survival at 48 hours days significantly less ($p=0.05$) than the control survival at the low-flow or critical dilution? _____ Yes _____ No

DILUTION SERIES RESULTS - Pimephales

TIME OF READING	REP	0%	5%	7%	9%	12%	16%
24-HOUR							
48-HOUR							
MEAN							

3. Are the test results to be considered valid? _____ Yes _____ No

If X no (test invalid), what reasons for invalidity?

4. Is this a retest of a previous invalid test? _____ Yes _____ No

Is this a retest of a previous test failure? _____ Yes _____ No

5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Pimephales:

a. NOEC _____ % effluent

b. LC₅₀48 _____ % effluent

PART III
STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction

In accordance with the provisions of LAC 33:IX.2701, et seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions

a. LA. R. S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R. S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details).

b. Any person may be assessed an administrative penalty by the State Administrative Authority under LA. R. S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants

a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply

a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

REVISED 12/17/08

Page 3 of 18

12. Severability

If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution

A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

14. Facilities Requiring Approval from Other State Agencies

In accordance with La R.S.40.4(A)(6) the plans and specifications of all sanitary sewerage treatment systems, both public and private, must be approved by the Department of Health and Hospitals state health officer or his designee. It is unlawful for any person, firm, or corporation, both municipal and private to operate a sanitary sewerage treatment facility without proper authorization from the state health officer.

In accordance with La R.S.40.1149, it is unlawful for any person, firm or corporation, both municipal and private, operating a sewerage system to operate that system unless the competency of the operator is duly certified by the Department of Health and Hospitals state health officer. Furthermore, it is unlawful for any person to perform the duties of an operator without being duly certified.

In accordance with La R.S.48.385, it is unlawful for any industrial wastes, sewage, septic tanks effluent, or any noxious or harmful matter, solid, liquid or gaseous to be discharged into the side or cross ditches or placed upon the rights-of-ways of state highways without the prior written consent of the Department of Transportation and Development chief engineer or his duly authorized representative and of the secretary of the Department of Health and Hospitals.

SECTION B. PROPER OPERATION AND MAINTENANCE**1. Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

(4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal

For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3. and B.3.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall allow the state administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

e. Sample Collection

(1) When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.

(2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.

REVISED 12/17/08

Page 7 of 18

"Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982" U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-83-124503.

6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

- a. "A Guide to Methods and Standards for the Measurement of Water Flow, 1975," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number COM-75-10683.
- b. "Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-273 535.
- c. "NPDES Compliance Flow Measurement Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

7. Prohibition for Tampering: Penalties

- a. LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.
- b. LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.

8. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR Part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation

- a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:
 - (1) Submitted on behalf of any facility, as defined in R.S.30:2004;
 - (2) Required as part of any permit application;
 - (3) Required by order of the department;
 - (4) Required to be included on any monitoring reports submitted to the department;
 - (5) Required to be submitted by contractor
 - (6) Otherwise required by department regulations.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part I or Part II of this permit.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) on the form specified in the permit. Preprinted DMRs are provided to majors/92-500's and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit
Office of Environmental Compliance
Post Office Box 4312
Baton Rouge, LA 70821-4312

Copies of blank DMR templates, plus instructions for completing them, and EPA's LPDES Reporting Handbook are available at the department website located at:

<http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2276>

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Requirements for Notification

a. Emergency Notification

As required by LAC 33:I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c. of these standard conditions.

A written report shall be provided within seven calendar days after the notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:I.3925.B.

b. Prompt Notification

As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify the department within 24 hours after learning of the discharge. Notification should be made to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) in accordance with LAC 33:I.3923.

In accordance with LAC 33:I.3923, prompt notification shall be provided within a time frame not to exceed 24 hours and shall be given to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) as follows:

- (1) by the Online Incident Reporting screens found at
<http://www3.deq.louisiana.gov/surveillance/irf/forms/>; or

REVISED 12/17/08

Page 11 of 18

- (6) a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;
- (7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.
- (8) Written notification reports shall be submitted to the Office of Environmental Compliance, Surveillance Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "**UNAUTHORIZED DISCHARGE NOTIFICATION REPORT.**"

Please see LAC 33:I.3925.B for additional written notification procedures.

- e. Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and; steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b.);
- (2) Any upset which exceeds any effluent limitation in the permit;
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G.).

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances

In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Water Permits Division as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:
 - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
 - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or
 - ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

REVISED 12/17/08

Page 13 of 18

- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

- (3) The written authorization is submitted to the state administrative authority.

- c. Changes to authorization. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization, satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

- d. Certification. Any person signing a document under Section D.10. a. or b. above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

- a. The name and address of any permit applicant or permittee;
- b. Permit applications, permits, and effluent data.
- c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION

1. Criminal

a. Negligent Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$50,000 per day of violation, or imprisonment of not more than two years, or both.

b. Knowing Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under

REVISED 12/17/08

Page 15 of 18

4. Applicable Standards and Limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including, effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308 and 403.
5. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.
6. Commercial Laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with R.S.49:1001 et seq.
7. Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.
8. Daily Maximum discharge limitation means the highest allowable "daily discharge".
9. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.
10. Domestic septage means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.
11. Domestic sewage means waste and wastewater from humans, or household operations that is discharged to or otherwise enters a treatment works.
12. Environmental Protection Agency or (EPA) means the U.S. Environmental Protection Agency.
13. Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.
14. Industrial user means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
15. LEQA means the Louisiana Environmental Quality Act.
16. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

27. The term mg/L shall mean milligrams per liter or parts per million (ppm).
28. The term SPC shall mean Spill Prevention and Control. Plan covering the release of pollutants as defined by the Louisiana Administrative Code (LAC 33:IX.9).
29. The term SPCC shall mean Spill Prevention Control and Countermeasures Plan. Plan covering the release of pollutants as defined in 40 CFR Part 112.
30. The term µg/L shall mean micrograms per liter or parts per billion (ppb).
31. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).
32. Visible Sheen: a silvery or metallic sheen, gloss, or increased reflectivity; visual color; or iridescence on the water surface.
33. Wastewater—liquid waste resulting from commercial, municipal, private, or industrial processes. Wastewater includes, but is not limited to, cooling and condensing waters, sanitary sewage, industrial waste, and contaminated rainwater runoff.
34. Waters of the State: for the purposes of the Louisiana Pollutant Discharge Elimination system, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from three miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as "waters of the United States" in 40 CFR 122.2, and tributaries of all such waters. "Waters of the state" does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.
35. Weekly average, other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all "daily discharge(s)" measured during a calendar week divided by the number of "daily discharge(s)" measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge

$$= \frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

36. Sanitary Wastewater Term(s):

- a. 3-hour composite sample consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.
- b. 6-hour composite sample consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.